

Date: Sat, 20 Nov 93 04:30:11 PST
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V93 #116
To: Ham-Ant

Ham-Ant Digest Sat, 20 Nov 93 Volume 93 : Issue 116

Today's Topics:

ARRL Handbook - HELP!
 Helical antenna
 ICOM Discone 7000
 What is it? (2 msgs)

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Wed, 17 Nov 1993 05:08:48 GMT
From: agate!howland.reston.ans.net!cs.utexas.edu!swrinde!emory!kd4nc!ke4zv!
gary@ames.arpa
Subject: ARRL Handbook - HELP!
To: ham-ant@ucsd.edu

In article <CGLu38.Kpr@Colorado.EDU> r_egeland@cc.colorado.edu writes:
>I'm new to the HAM world, and haven't even bought the ARRL handbook. I've
>heard that this book is definately the best resource for a beginning ham to
>find out about making antennas and matching them with frequencys. I have a
>good physics / math / electronics background, but would just like to find out
>about what HAM radio is all about! Could anyone give me the source for the
>ARRL handbook - I've heard it's around \$20, but my Library doesn't have it.

The Handbook is an essential reference. If you can get some older editions
as well, all the better, since the newer editions don't cover some things
as throughly as the older ones. There's only so much they can put in a book,
and new topics are crowding out some of the older, but still important,
information. However, for antenna information, the better book is _The

ARRL Antenna Book_. Again an older edition as well as the newest one would be useful. There's also the three volume _Antenna Compendium_, and the essential book _Reflections_ by Walt Maxwell. All are available from the ARRL. Of course your college bookstore should stock _Antennas_ by Kraus, that's essential too if you want to understand the 'why' as well as the 'how' of antennas, a topic not well addressed in the amateur literature. Of course I'm assured by the experts that all you really need to know is Maxwell's equations. You can derive everything else you need to know from them. A trivial exercise left to the student. :-)

ARRL publications should be available most places amateur equipment is sold. You can also order directly from the ARRL. Mail addressed to The American Radio Relay League, 225 Main St., Newington CT 06111 should get you a publications list. Or you can call them at (203) 666-1541.

Gary

--

Gary Coffman KE4ZV	If you wanna run cool,	gatech!wa4mei!ke4zv!gary
Destructive Testing Systems	you gotta run on heavy,	uunet!rsiatl!ke4zv!gary
534 Shannon Way	heavy fuel.	emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244	-Mark Knoffler	

Date: Wed, 17 Nov 1993 04:05:30 GMT
From: elroy.jpl.nasa.gov!usc!cs.utexas.edu!utnut!torn!nott!cunews!
freenet.carleton.ca!Freenet.carleton.ca!aj467@decwrl.dec.com
Subject: Helical antenna
To: ham-ant@ucsd.edu

In a previous article, tmantler@inqmind.bison.mb.ca (Tony Mantler) says:

>hello all,
> I'm planning on building a helical antenna, but I need the
>formulas for the measurements. Also some tips on construction methods
>would help.

>

>Thanx

>

> Tony Mantler, Winnipeg

>

>tmantler@inqmind.bison.mb.ca-

>The Inquiring Mind BBS, Winnipeg, Manitoba 204 668-8845

>

The ARRL Handbook just might be a good source to start.

--

Bill VE3NJW Advanced Amateur

Packet Address : VE3NJW@VE3KYT.#EON.ON.CAN
Freenet Address: aj467@Freenet.Carleton.ca

Date: 17 Nov 93 15:06:58 GMT
From: ftpbox!mothost!delphinium.rtsg.mot.com!mustang18!thweatt@uunet.uu.net
Subject: ICOM Discone 7000
To: ham-ant@ucsd.edu

I am planning on installing a ICOM 7000 on my roof. Does anyone own this antenna? I am interested in talking to others who own this unit, is it any good? Also I will be using Belden's cable 9913 and the main function of this antenna will be used for a scanner frequency range of 50 to 1.3 GHz. My scanner is an ICOM R100 which can receive from 100 kHz to 1.8 GHz, great scanner so I might want to use this antenna at the lower frequencies also. Icom states that the antenna cuts out at 25MHz, but I wonder when the performance really dies off?

Thanks,
John Thweatt

Date: Wed, 17 Nov 1993 04:13:37 GMT
From: cs.utexas.edu!utnut!torn!nott!cunews!freenet.carleton.ca!
Freenet.carleton.ca!aj467@uunet.uu.net
Subject: What is it?
To: ham-ant@ucsd.edu

In a previous article, johnz@utxvms.cc.utexas.edu () says:

>I bought an antenna at a garage sale and am not sure what it was designed for.
>it is a vertical about 19 feet high with three 8 ft counterpoises at the
>bottom. It has 3 small wires at the top, each about 10in long. What frequency
>was it designed to operate at?
>

It sounds like a CB halfwave if about 18 ft, or maybe a 5/8 if about 22 ft. May have been trimmed for 10 if bought from a Ham. Test it out on bottom of 10 mtrs and move up 100kHz if SWR is climbing is probably for CB ie 11 mtrs. could likely be trimmed for 10 but a perfect match is not likely as the matching system will not be designed for 10. Will still give good performance for 10 & 12 mtrs with a tuner, and 15 and 20 as well, but not as good a signal because of length compromise. If you want a 12, 15, 17, 20 mtr vertical, don't even bother trimming.
Just use a tuner (internal or external tuner)

--

Bill VE3NJW Advanced Amateur
Packet Address : VE3NJW@VE3KYT.#EON.ON.CAN
Freenet Address: aj467@Freenet.Carleton.ca

Date: 17 Nov 1993 17:40:14 GMT
From: library.ucla.edu!agate!howland.reston.ans.net!usc!yeshua.marcam.com!
wrdis02.robins.af.mil!lakeith@network.ucsd.edu
Subject: What is it?
To: ham-ant@ucsd.edu

Sounds like an 11 meter ground plane to me..

Does it have any markings?

Larry, KQ4BY

Date: Wed, 17 Nov 1993 04:43:13 GMT
From: elroy.jpl.nasa.gov!swrinde!emory!kd4nc!ke4zv!gary@ames.arpa
To: ham-ant@ucsd.edu

References <1993Nov5.061202.27862@ke4zv.atl.ga.us>, <CGLEox.EGo@fc.hp.com>,
<1993Nov16.174711.22720@stsci.edu>
Reply-To : gary@ke4zv.atl.ga.us (Gary Coffman)
Subject : Re: Tower Guy Anchors

In article <1993Nov16.174711.22720@stsci.edu> hodge@stsci.edu (Phil Hodge) writes:

>Gary Coffman (gary@ke4zv.atl.ga.us) wrote:

>: If you can get access to a cable tension gauge, set the guy tension to
>: 50-75 pounds depending on temperature, the tower will "grow" in warm
>: weather so use the higher tension setting then. The guys will loosen in
>: cold weather as the tower shrinks.

>

>Why don't the cables "grow" together with the tower in warm weather?

>Are they made of such different materials that their coefficients of
>expansion are significantly different? For long cables I guess a small
>difference could be significant.

I don't know the reason for sure, but I have empirical evidence it's
true nonetheless. Perhaps it's because the guys are made up of twisted
strands and their growth/shrinkage is manifested mainly by twisting.

Gary

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Gary Coffman KE4ZV | If you wanna run cool, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | you gotta run on heavy,| uunet!rsiatl!ke4zv!gary
534 Shannon Way | heavy fuel. | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | -Mark Knoffler |

Date: Wed, 17 Nov 1993 05:29:30 GMT
From: elroy.jpl.nasa.gov!swrinde!emory!kd4nc!ke4zv!gary@ames.arpa
To: ham-ant@ucsd.edu

References <1993Nov4.162453.10770@ccd.harris.com>,
<1993Nov5.061202.27862@ke4zv.atl.ga.us>, <CGLEox.EGo@fc.hp.com>
Reply-To : gary@ke4zv.atl.ga.us (Gary Coffman)
Subject : Re: Tower Guy Anchors

In article <CGLEox.EGo@fc.hp.com> jayk@fc.hp.com writes:
>Gary Coffman (gary@ke4zv.atl.ga.us) wrote:
>: If you can get access to a cable tension gauge, set the guy tension to
>: 50-75 pounds depending on temperature, the tower will "grow" in warm
>: weather so use the higher tension setting then. The guys will loosen in
>: cold weather as the tower shrinks.
>
>The Rohn catalog says to tension the guys to 10 percent of their rated
>value (when using the proper size guys they recommend for various towers).
>I'm no expert on why, but thats what is says.

Yeah, but that can be a *lot* of tension, like 300 pounds for typical
aircraft cable guys. For most modest height ham towers, I think that's
too much. The reason for tensioning guys is to preload out the "stretch"
in the cable, and to prevent whipping in the wind. For longer guys on
taller towers, the higher tension may be warranted, but I think 50-75
pounds is fine for towers of 60 feet or so. I believe that antennas on
a tower that sways a bit are more likely to survive buffetting winds
thanks to the "spring" cushioning effect. You won't go wrong by following
Rohn's advice however.

Gary

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End of Ham-Ant Digest V93 #116
